Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	46	Schmidt NEAR ann	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/11 15:08
L2	7	tumor ADJ invasion ADJ assay	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/11 15:08
L3	546	(cell ADJ migration ADJ assay) and (tumor cancer)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/11 15:17
L4	176	Ruoslahti NEAR Erkki	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/11 15:10
L5	3	l4 and (membrane NEAR invasion)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/11 15:13
L6	20	l4 and (tumor NEAR invasion)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/11 15:13
L8	435	l3 and (tumor WITH inhibit$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/11 15:17
L9	11998	(invasion migration) SAME (tumor cancer)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/11 15:19
L10	1148	(invasion migration) SAME (tumor cancer) SAME (amphoterin cadherin integrin hyaluronic)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/11 15:20
L11	501	(invasion migration) WITH (tumor cancer) WITH (amphoterin cadherin integrin hyaluronic)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/11 15:22
L12	273	(invasion migration) WITH (tumor cancer) WITH (integrin)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/11 15:22
L13	4	(invasion migration) WITH (tumor cancer) WITH (integrin).clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/11 15:22

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(FILE 'HOME' ENTERED AT 15:24:43 ON 11 JAN 2005)

FILE 'MEDLINE, CAPLUS' ENTERED AT 15:24:57 ON 11 JAN 2005

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L1       2307303 S TUMOR OR NEOPLAS? OR TUMOUR OR CANCER
L2       2275423 S INVAS? OR MIGRATION OR GROWTH
L3        282445 S L1 (L) L2
L4        107661 S L3 AND INHIBIT?
L5          3429 S L4 AND (INTEGRIN OR AMPHOTERIN OR CADHERIN OR HYALURONIC)
L6           937 S L5 AND PY<=1998
L7           197 S L6 AND ASSAY
L8           149 S L7 AND INTEGRIN
L9           149 FOCUS L8 1-
L10           98 S L9 AND (A(L)INTEGRIN)
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L11 ANSWER 10 OF 98 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:137748 CAPLUS
DN 126:155848
TI Attachment, spreading and migration of melanoma cells on vitronectin. The role of .**alpha**.vβ3 and . **alpha**.vβ5 **integrins**
SO Experimental Dermatology (**1996**), 5(6), 308-315
CODEN: EXDEEY; ISSN: 0906-6705
AU Van Leeuwen, Robert L.; Yoshinaga, Iara G.; Akasaka, Toshihide; Dekker, Sybren K.; Vermeer, Bert Jan; Byers, H. Randolph
AB Recent in situ studies suggest the .**alpha**.vβ3 **integrin** is a **tumor** progression marker in melanoma. We analyzed 5 human melanoma cell lines for their expression of the vitronectin binding .**alpha**.vβ3 and . **alpha** .vβ5 **integrins** using flow cytometry. The role of these receptors in cell attachment, spreading and **migration** was investigated using attachment **assays**, video time lapse spreading and **migration assays** and with function blocking monoclonal antibodies. Cell lines derived from later stages of **tumor** progression exhibited high levels of .**alpha** .vβ3 expression, whereas no similar correlation with . **alpha** .vβ5 expression was identified. Cell attachment, spreading and **migration** response on vitronectin correlated well with the expression level of the .**alpha**.vβ3 but not the . **alpha**.vβ5 vitronectin receptor. Blocking of the . **alpha**.vβ3 **integrin** resulted in a significant decrease in cell attachment, spreading and motility whereas the function blocking antibody against the .**alpha**.vβ5 **integrin** only **inhibited** cell attachment in cell lines with the highest level of expression of this **integrin**. Taken together, our study indicates that the level of expression of the .**alpha**.vβ3 and .**alpha**.vβ5 **integrins** is heterogeneous in melanoma cell lines and that the .**alpha**.vβ5 **integrin**, if present, may function only during the initial cell attachment whereas the .**alpha**.vβ3 plays an important role in cell spreading and cell **migration** as well.

L11 ANSWER 5 OF 98 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1994:677755 CAPLUS
DN 121:277755
TI A novel in vitro **assay** system for transendothelial **tumor** cell **invasion**: Significance of E-selectin and .**alpha**.3 **integrin** in the transendothelial **invasion** by HT1080 fibrosarcoma cells
SO Clinical & Experimental Metastasis (**1994**), 12(4), 305-14
CODEN: CEXMD2; ISSN: 0262-0898
AU Okada, Tomoko; Okuno, Hiroaki; Mitsui, Youji
AB The interaction of **tumor** cells with endothelial cells is a key event in **tumor** metastasis. The authors established an in vitro **invasion assay** system, in which the **invasion** of **tumor** cells after interaction with endothelial cells can be examined Two chamber culture wells separated by porous membrane were used. Human umbilical vein endothelial cells (HUVEC) were placed on porous membranes coated with matrix components. The **invasion** by HT1080 fibrosarcoma cells was determined in this system by counting the number of cells that moved through the membranes from upper to lower chambers. HUVEC cells did not migrate through the membranes as judged by the staining with UEA-I. Observation by SEM revealed that HT1080 cells bound to HUVEC surfaces and migrated underneath the HUVEC monolayer. Effects of antibodies specific for cell surface adhesion mols. on the **migration** of HT1080 cells were examined **Invasion** of uncoated membranes and membranes coated with HUVEC cells was compared. Antibody against E-selectin significantly suppressed an increase of HT1080 cell **invasion** of HUVEC monolayers stimulated by IL-1β or TNF.**alpha**.. Antibody against **integrin** .**alpha** .3 subunit remarkably **inhibited** the **invasion** of HUVEC cell-coated membranes, suggesting that **integrins** with the . **alpha**.3 subunit may play an important role in the transendothelial **invasion** by HT1080 cells.

L11 ANSWER 4 OF 98 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1990:588996 CAPLUS
DN 113:188996
TI Monoclonal antibody and synthetic peptide **inhibitors** of human **tumor** cell **migration**
SO Cancer Research (**1990**), 50(15), 4485-96
CODEN: CNREA8; ISSN: 0008-5472
AU Yamada, Kenneth M.; Kennedy, Dorothy W.; Yamada, Susan S.; Gralnick, Harvey; Chen, Wen Tien; Akiyama, Steven K.
AB The processes of **migration** and **invasion** by human **tumor** cells are likely to involve specific cell surface receptors, such as receptors for the extracellular matrix mols. fibronectin, laminin, and collagen. This study examined the roles of several of these receptors using a set of monoclonal antibodies directed against the β1 **integrin** family, as well as a series of synthetic peptides reported to **inhibit** various interactions of each of these proteins with the cell surface. The most general **inhibitor** of **tumor** cell **migration** was found to be the anti-β1 monoclonal antibody 13, which **inhibited** the **migration** of human HT-1080 fibrosarcoma cells, 5637 bladder carcinoma cells, VA13 viral transformants, and HCT 116 colon carcinoma cells when fibronectin was the **migration** substrate. Moreover, this antibody was particularly effective in blocking cell **migration** on laminin, as well as **migration** within 3-dimensional collagen gels. It also **inhibited** in vitro **invasiveness** in a reconstituted basement membrane **invasion assay** (Matrigel **assay**) at concns. as low as 1 μg/mL. **Integrins** of the β1 class thus appear to play a central role in several types of **migration** by a variety of human **tumor** cell lines. Anti-.**alpha**.5 fibronectin receptor monoclonal antibody 16 also significantly **inhibited migration** on fibronectin, but not on other substrates, in 3 of the 4 cell lines. Conversely, anti-.**alpha**.2 monoclonal antibody F17 strikingly **inhibited migration** in 3-dimensional collagen gels, but not on other substrates, implicating the .**alpha**.2β1 **integrin** system in **migration** of **tumor** cells within collagenous matrixes. A series of synthetic peptides previously reported to **inhibit** interactions of normal cells with fibronectin, laminin, and collagen were also tested as **inhibitors** of **tumor** cell **migration**. Peptides containing the Arg-Gly-Asp adhesive recognition signal were partially **inhibitory**, but with occasional exceptions, most other peptides had no effects on **migration**. The results indicate the central importance of several specific β1 **integrins** in human **tumor** cell **migration** and show the effectiveness of monoclonal antibody treatment in blocking this process in vitro.